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09/810,365	03/16/2001	Yeong-Taeg Kim	SAM1.0084	9213

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EXAMINER

SHANNON, MICHAEL R

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,365

Applicant(s)

KIM, YEONG-TAEG

Examiner

Michael R Shannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2001.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lawler et al US patent 5,585,838, cited by examiner.

Regarding claim 1, the claimed receiver for a digital video service network is met as follows:

- The claimed means for receiving a digital television signal from a transmission channel, the digital television signal including Preview Program and Broadcasting Schedule Information, the Preview Program and the Broadcasting Schedule Information relating to a Main Program is met by the ability for the Lawler receiver to receive a digitally encoded (MPEG2) video/data stream with preview programs, main programs, and schedule information. Column 5, lines 30-36 describe the digital data delivery and column 10, lines 42-56 describe the preview program operation.
- The claimed means for decoding the digital television signal is met by the digital decoder 54 of figure 2, which serves to decode input 48 digital video.

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- The claimed means for providing an output signal reflective of the Preview Program for display is met by the discussion of the preview being displayed to the user in the preview window and delivered via delivery path 48 from head-end 12 [col. 10, lines 42-56].
- The claimed means for downloading the Broadcasting Schedule Information while the Preview Program is being decoded and displayed is met by the program time guide's ability to display and update from the head-end 12 [col. 8, lines 26-30] while the Preview Program is being displayed in the preview window [col. 10, lines 42-56].

Regarding claim 2, the claimed means for demodulating the received digital television signals and extracting bit streams describing the digital television signal is met by analog demodulator 52, or the digital decoder 54, which both serve to select one or more analog or digital video signals out of the plurality that are present on input 48.

Regarding claim 3, the claimed TS demultiplexer for demultiplexing and outputting a signal representative of the Preview Program is met by the digital decoder, which serves to demodulate, decode, and demultiplex the modulated and multiplexed [see the Digital Mod. System 38 and the MUX 42 of Figure 1] signal sent from head-end 12 through input 48. The signal can be the Program Information, the Main Program, or the Preview Program for display in the preview window [col. 6, lines 54-63 and col. 10, lines 42-56].

Regarding claim 4, the claimed fact that the aforementioned TS demultiplexer outputs the Broadcasting Schedule Information is met by the fact that the TS

demultiplexer (as described above in the rejection to claim 3) can receive the program time guide from the head-end over input line 48, and therefore, receive it through the multiplexer and demultiplexer [col. 8, lines 27-31].

Regarding claim 5, the claimed System and Schedule Manager for controlling the means for decoding, the System Manager further directing a data stream flow of data from the digital television signal is met by the CPU 58 of Figure 2. The CPU serves to control the decoder and the data flow from input 48 [col. 7, lines 52-65].

Regarding claim 6, the claimed Digital Storage Device for receiving, storing and replaying data reflective of the Main Program, the Main Program being related to the Preview Program and the Main Program being described by the Broadcasting Schedule Information is met by the inherent teachings of a recording device. In column 14, lines 30-48, Lawler et al discuss the use of a "future program options menu" [Fig. 8], wherein the user can select to record a program at a later time (whenever it is broadcast) that is currently being previewed in preview window 110 and described by the cell in the program time guide, so that it can be viewed in the future at the user's convenience.

Regarding claim 7, the claimed application decoder for decoding audio and video coded bit streams of the Preview Program or the Main Program, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal for processing and display is met by the video processor subsystem 63, which is used to process, decode, and output the video to the display device for viewing [col. 7, lines 52-65].

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Regarding claim 8, the claimed means for generating an icon to overlay the video output of the decoded video signal during display is met by the discussion of the mixer's 64 ability to blend and mix locally generated graphics onto digital and analog video signals [col. 7, lines 62-65]. For example, this can be seen in Figures 7-9, wherein a user can select from a plurality of icons in menu options.

Regarding claim 9, the claimed Broadcasting Schedule Information including information describing the Main Program, including channel number and start time is met by the mention of the program grid, each cell containing information relating the channel number and start time [col. 8, lines 31-35].

Regarding claim 10, the claimed Schedule Queue for receiving at least the start time of the Broadcasting Schedule Information, the start time being compared with a system clock to determine when to have control signals sent to instruct the receiver to process the Main Program is met by the discussion of the ability for a viewer to select the remind or record feature in the "future program options menu" of Fig. 8. The remind feature causes the system to set a reminder for the selected program. The reminder is then used to remind the user of the program shortly before it is to be broadcast. The record feature causes the system to set a record time for the program, therefore letting the system record the show when it becomes available in the future [col. 14, lines 30-48]. While no specific mention of a queue is made, it is inherent in the teachings of this reservation type system that within the CPU and memory units, some sort of queue exists to store these requests and compare starting times to the system clock and allow for execution or recording of the queued programs.

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Regarding claim 11, the claimed ability to notify the viewer that the start time is approaching and requesting an instruction as to whether the viewer desires that the Main program be recorded or displayed is met by the "future program options menu" of Fig. 8 and it's ability to remind the user of the program shortly before it is to be broadcast [col. 14, lines 30-48].

Regarding claim 12, the claimed means for notifying providing an instruction to record if the viewer does not input any instruction within a predetermined time is met by the fact that the record option has already been selected prior to the time the program is beginning [col. 14, lines 30-48]. The countdown time for display of the program is met by the ability for the system to remind the user of an upcoming program and respond to input whether or not to tune to that channel for viewing.

Regarding claim 13, the claimed method for providing MPEG-2 digital television signals is met as follows:

- The claimed step of providing a Preview Program, the Preview Program relating to a Main Program is met by the discussion of a preview window 110, which displays a preview program to give the user an idea of the contents of the main program for the selected time slot [col. 10, lines 42-56].
- The claimed step of providing Broadcasting Schedule Information relating the Main Program is met by the program time guide, which is downloaded and displayed at the receiver and has cells in a table (like a standard

EPG) which correspond to Main Programs (future, past, or present) [col. 8, lines 27-35].

- The claimed step of coding the Preview Program into an MPEG-2 signal is met by column 5, lines 30-36, wherein an MPEG2 video signal is disclosed and used to deliver the main program, the preview program, and the programming information.
- The claimed step of embedding the Broadcasting Schedule Information into the MPEG-2 signal such that the Broadcasting Schedule Information will be received by a digital television receiver while the Preview Program is being decoded by the digital television receiver is met by the teaching in column 5, lines 30-36, wherein Lawler et al disclose a system which sends the guide information simultaneously with the broadcast of video and in an MPEG-2 signal. The fact that the Broadcasting Schedule Information is updated during the decoding of the Preview Program is met by the program time guide's ability to display and update from the head-end 12 [col. 8, lines 26-30] while the Preview Program is being displayed in the preview window [col. 10, lines 42-56].

Regarding claim 14, the claimed step of coding a notice into the MPEG-2 signal, the notice being applied by the receiver in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the Preview Program and the Broadcasting Schedule Information is met by the ability for the system to show the user a set of icons which relate to the information being displayed and the ability for one of

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those icons to relate to the program for later viewing [col. 10, lines 27-40 and col. 14, lines 30-49].

Regarding claim 15, the claimed notice being an icon simultaneously displayed with the Preview Program is met by the displayable icons as discussed above [col. 10, lines 27-40] and the fact that the icons can be used to remind or record the program for viewing at a later time [col. 14, lines 30-49].

Regarding claim 16, the claimed MPEG-2 digital television signal is met as follows:

- The claimed Preview Program coded within the MPEG-2 signal, the Preview Program relating to a Main Program is met by column 5, lines 30-36, wherein an MPEG-2 video signal is disclosed and used to deliver the main program, the preview program, and the programming information. The preview program is displayable in the preview window 110 upon selection of a Broadcast Schedule Information cell located within the program time guide and relating to a Main Program.
- The claimed Broadcasting Schedule Information embedded within the MPEG-2 signal, the Broadcasting Schedule Information relating to the Main Program is met by the fact that the programming information can be sent in an MPEG-2 signal with the Preview Program and the Main Program [col. 5, lines 30-36].
- The claimed Broadcasting Schedule Information being embedded into the MPEG-2 signal such that the Broadcasting Schedule Information will be

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received by a digital television receiver while the Preview Program is being decoded by the digital television receiver is met by the teaching in column 5, lines 30-36, wherein Lawler et al disclose a system which sends the guide information simultaneously with the broadcast of video and in an MPEG-2 signal. The fact that the Broadcasting Schedule Information is updated during the decoding of the Preview Program is met by the program time guide's ability to display and update from the head-end 12 [col. 8, lines 26-30] while the Preview Program is being displayed in the preview window [col. 10, lines 42-56].

Regarding claim 17, the claimed notice coded into the MPEG-2 signal, the notice being applied by the receiver in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the Preview Program and the Broadcasting Schedule Information is met by the ability for the system to show the user a set of icons which relate to the information being displayed and the ability for one of those icons to relate to the program for later viewing [col. 10, lines 27-40 and col. 14, lines 30-49].

Regarding claim 18, the claimed notice being an icon simultaneously displayed with the Preview Program is met by the displayable icons as discussed above [col. 10, lines 27-40] and the fact that the icons can be used to remind or record the program for viewing at a later time [col. 14, lines 30-49].

Regarding claim 19, the claimed method of displaying an MPEG-2 digital television signal is met as follows:

- The claimed step of displaying a program coded within an MPEG-2 signal, the Program relating to a related item of choice for the viewer is met by the use of the preview window to display the preview program. The preview program is related to the main program, which will be broadcast sometime in the future [col. 10, lines 27-56].
- The claimed step of receiving ordering information embedded within the MPEG-2 signal simultaneously with the display of the program, the ordering information relating to the item of choice, and the ordering information allowing a viewer to select the item while the program is being displayed is met by the ability for the preview program to display in the preview window 110 and afford the ability of ordering the main program [col. 14, lines 30-49] (such as in a pay-per-view system).

Regarding claim 20, the claimed step of providing a notice to a viewer, the notice being applied to the viewer in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the program and the ordering information is met by the ability for the system to show the user a set of icons which relate to the information being displayed and the ability for one of those icons to relate to the ordering of a program for later viewing [col. 10, lines 27-40 and col. 14, lines 30-49].

Regarding claim 21, the claimed notice being an icon simultaneously displayed with the program is met by the displayable icons as discussed above [col. 10, lines 27-40] and the fact that the icons can be used to order the program for viewing at a later time [col. 14, lines 30-49].

Regarding claim 22, the claimed program being a Preview Program, the item of choice being an associated Main Program and the ordering information being Broadcasting Schedule Information is met by the fact that the preview is displayed in the preview window 110, the preview being related to a future main program and the program time guide being the Broadcasting Schedule Information with the ability to display icons which represent this information [col. 10, lines 27-56].

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 123, 119, 219, and 323. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: 215, 416, 418, 419, and 421. Corrected drawing sheets are required in

reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "319" has been used to designate both Decoded Audio and Control Signal. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Kim US patent 5,432,558 discloses a system that uses codes inserted into the video signal to set time and reserve program recording based on user indication.

Yamane et al US patent 6,523,176 disclose a system that allows a user to set reservations to record and/or view future programs using an scheduling/reservation list.

Emura US patent 6,344,878 discloses a system that can record programs based on a user reservation list.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Shannon whose telephone number is 703-305-6955. The examiner can normally be reached on M-F 7:30-5:00, alternate Friday's off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
October 21, 2004


JOHN MILLER
SUPERVISORY PATENT EXAMINER
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